

**Remarks**

This Amendment is in response to the Advisory Action dated **May 8, 2009**. The Advisory Action rejected claims 1-7, 10, 12, 14-16, 18-21, 24-29, 31-36, 38-41, 44-56, 59-64, 79, 82, 85, 88, and 91 under 35 USC § 103 over Nunez (US 5,800,514) in view of Yachia (US Pub. No. 2004/0093065); rejected claims 9, 11, and 13 under 35 USC § 103 over Nunuz in view of Yachia in further view of Schmitt (US 5,383,925); and rejected claims 30, 37, 57, 80, 83, 86, and 89 under 35 USC § 103 over Nunez in view of Yachia in further view of De Paulis (US 6,352,554). In Applicant's Amendment After Final, claims 80, 81, 83, 84, 86, 87, 89, and 90 were canceled without prejudice or disclaimer and claims 1, 30, 32, 49, and 79 were amended. The Advisory Action dated May 8, 2009 noted that Applicant's amendments were entered and the objection to the Specification had been overcome. The Advisory Action rejected claims 1-7, 9-16, 18-21, 24-41, 44-57, 59-64, 79, 80, 82, 83, 85, 86, 88, 89, and 91. However, as claims 80, 81, 83, 84, 86, 87, 89, 89, and 90 were previously canceled in the Amendment After Final, and the Amendment was entered, Applicant understands the rejection to be directed to claims 1-7, 9-16, 18-21, 24-41, 44-57, 59-64, 79, 82, 85, 88, and 91.

Independent claims 1, 32, 49, and 79 are herein amended. Claim 1 is herein amended to recite:

said bulbous woven section further being radially crimped and said first and second tubular ends being free from crimps, said woven pattern of said bulbous woven section being different from said woven pattern of said first and second tubular ends, and said bulbous woven section comprising a different yarn type than either of said first and second tubular ends, wherein said yarn type is selected from the group consisting of multifilament, monofilament, and staple.

Claim 32 is herein amended to recite "said bulbous woven portion being radially crimped and said hollow tubular woven portion being free from crimps; said pattern of said bulbous woven portion being different from said pattern of said hollow tubular woven portion."

Claim 49 is herein amended to recite "said woven pattern of said bulbous woven section being different from said woven pattern of said first and second tubular end."

Claim 79 is herein amended to recite:

said woven pattern of said bulbous woven portion comprises a terry weave and said woven pattern of said first and third hollow tubular woven portions comprises

a woven pattern selected from the group consisting of a plain weave, basket weave, twill weave, velour weave, double velour weave, satin weave, and combinations thereof.

Support for these amendments can be found at least in the Specification at least in paragraphs [0008] and [0012] of the published application.

Claims 7, 13, 14, 27-29, 36, 37, 44-46, 56, and 57 are canceled without prejudice or disclaimer and claims 20, 21, 40, 41, 60, and 61 are amended in accordance with the amendments to independent claims 1, 32, 49, and 79.

In light of the foregoing Amendments and following comments, Applicant requests reconsideration.

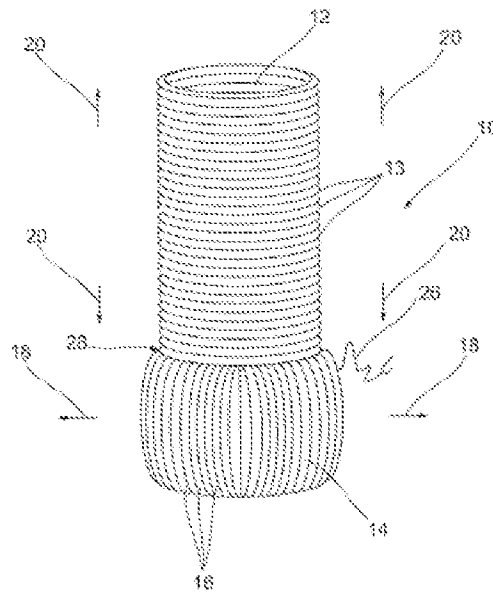
### **Claim Rejection – Section 103**

#### Independent Claim 1

As claim 1 has been amended to include, in-part, the subject matter of previous claims 13, 28, and 37, the rejection of claim 1 will be discussed within the context of the rejections of claims 13, 28, and 37 and the references applied in the rejection of claims 13, 28 and 37, namely Nunez, Yachia, De Paulis, and Schmitt.

With regard to the claimed language of previous claim 37, the Office Action asserts that De Paulis discloses a “different pattern section of a graft.” Final Office Action page 7.

As shown below, De Paulis discloses a “conduit 10” comprising a “first upper portion 12” and a “second lower portion, or skirt portion, 14 ... which is provided with longitudinally extending pleats or corrugations 16.” Column 4, line 63 – column 5, line 6. De Paulis further discloses that “the skirt portion 14 can move and expand in a lateral direction only, while the first portion 12 of the conduit 10 can extend in the longitudinal direction only.” Column 5, lines 28-30.



*Fig. 2*

De Paulis does not teach or suggest a bulbous section with a pattern different from the pattern of a tubular end, as claimed. De Paulis merely discloses a different orientation of the same pattern. See, e.g., column 5, lines 28-30. Nowhere, for example, does De Paulis teach or suggest using a basket weave for the bulbous section with a velour weave for one or more of the tubular ends.

Furthermore, a person having ordinary skill in the art would not be motivated to modify Nunez with De Paulis, as suggested by the Office Action. The conduit 10 of De Paulis is designed with first and second tubular portions with corrugations that are oriented such that the conduit is permitted to “mimic the function of the sinuses of Valsalva.” Abstract of De Paulis.

A person having ordinary skill in the art looking for a conduit capable of “enabl[ing] the graft to enable pressure to be reduced at the coronary ostia” as suggested by the Office Action would simply use the conduit of De Paulis. A person having ordinary skill in the art would not modify Nunez, which discloses a tubular prosthesis having warp yarns and fill yarns. See Nunez at column 3, lines 58-61. Modifying the prosthesis of Nunez having warp yarns and fill yarns with a corrugation as shown in De Paulis would inhibit a primary function of De Paulis – expansion of the skirt portion in a lateral direction only, and expansion of the first portion in a longitudinal direction only. In other words, using fill yarns in the first portion of the conduit of De Paulis would prevent longitudinal expansion, and using warp yarns in the skirt portion of the

conduit of De Paulis would prevent circumferential expansion. As a result, a person having ordinary skill in the art would not be motivated to modify Nunez with De Paulis as the Office Action suggests. The proposed modification would render the prior art unsatisfactory for its intended purpose. See MPEP § 2143.01(V). Furthermore, De Paulis teaches away from grafts that cannot expand radially outwardly. See, e.g., column 2, line 63 – column 3, line 3. Thus, a person having ordinary skill in the art would not make the suggested modification.

In addition, modifying the prosthesis of Nunez with the conduit of De Paulis would render Nunez unsatisfactory for its intended purpose. Nunez discloses that it is advantageous to closely regulate the porosity of the prosthesis. See, e.g., column 9, lines 61-67, stating:

It is known that a delicate balance exists between porosity of the graft for proper ingrowth and the need in many applications for fluid-tight walls. It has been determined that a void greater than the diameter of about three warp yarns results in a graft with a porosity which is unacceptable as a fluid-tight conduit and may be incapable of sufficiently maintaining blood pressure therein.

Modifying the prosthesis of Nunez with a first portion or skirt portion capable of deforming, as disclosed in De Paulis, would seemingly inhibit tissue ingrowth, which is disclosed as an advantage in Nunez. For example, as the first portion and skirt portion of De Paulis expand and contract, the porosity of the conduit changes and the voids between adjacent yarns correspondingly increase and decrease. As a result, a person having ordinary skill in the art would not be motivated to use the deforming first portion or skirt portion of De Paulis, or the pattern shown therein, with the prosthesis of Nunez.

For at least the foregoing reasons, the Office Action has failed to establish a *prima facie* case of obviousness.

In addition, with regard to the “radially crimped” language of amended claim 1 (previous claim 28), the Office Action asserts that “Nunez discloses the graft can be crimped.” Page 6. Applicant notes, however, that the claim is directed to a graft that is “radially crimped.” (emphasis added). Nunez does not teach or suggest radial crimping. As a result, claim 1 is patentable over Nunez, Yahcia, Schmitt, and De Paulis.

For at least the foregoing reasons, Applicant requests withdrawal of the rejection of claim 1.

In addition, claims 2-6, 9-12, 16, 18-21, 24-26, 30, 31, and 82 depend from claim

1. These claims are therefore patentable for at least the reasons discussed with respect to claim 1. Consequently, Applicant requests withdrawal of the rejection.

Independent Claims 32, 49, and 79

Independent claims 32, 49, and 79 all include language indicating that the woven pattern of the bulbous woven section is different from the woven pattern of the tubular ends. As none of the cited references teach or suggest such a feature, Applicant requests withdrawal of the rejection of independent claims 32, 49, and 79 for essentially the same reasons discussed with respect to claim 1.

Claims 33-35, 38-41, 47, 48, 50-55, 59-64, 85, 88, and 91 depend from claims 32, 49, and 79, respectively. These claims are therefore patentable for at least the reasons claims 32, 49, and 79 are patentable. Consequently, Applicant requests withdrawal of the rejection.

**Conclusion**

Based on at least the foregoing remarks, Applicant requests withdrawal of the rejections and allowance of claims 1-6, 9-12, 15-16, 24-26, 30-35, 38-41, 47-55, 59-64, 79, 82, 85, 88, and 91. Favorable consideration and prompt allowance of these claims is earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

Date: June 10, 2009

By: /James M. Urzedowski/  
James M. Urzedowski  
Registration No.: 48596

6640 Shady Oak Rd., Suite 400  
Eden Prairie, MN 55344-7834  
Telephone: (952) 563-3000  
Facsimile: (952) 563-3001

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